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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/729,843

12/05/2003

Luca G. Fasoli

023-0031

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01/11/2006

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EXAMINER

NGUYEN, VAN THU T

ART UNIT

PAPER NUMBER

2824

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/729,843

Applicant(s)

FASOLI ET AL.

Examiner

VanThu Nguyen

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2824

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04/05/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/25/05; 6/10/05; 5/31/05</u> | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

1. After reconsideration, claims 1-49 are rejoined and fully examined.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-49 are rejected under 35 U.S.C. 102(e) as being anticipated by Scheuerlein et al. (P.G. Pubs 2004/0125629, referring hereafter as Scheuerlein) or Sakui et al. (U.S. Patent No. 6,411,548, referring hereafter as Sakui).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

**Regarding claim 1**, Scheuerlein discloses, in FIGS. 1-3, an integrated circuit comprising a memory array having at least one plane of memory cells, said memory cells comprising thin film modifiable conductance switch devices and which cells are arranged in a plurality of series-

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connected NAND strings, said NAND strings including a series select device at each end thereof (see paragraphs [0050] to [0063])

**Regarding claims 2-17**, see entire disclosure in Scheuerlein.

**Regarding claim 18**, Scheuerlein discloses, in FIGS. 1-3, an integrated circuit comprising a memory array having at least one plane of memory cells (see FIG. 1), said memory cells comprising thin film modifiable conductance switch devices and which cells are arranged in a plurality of series-connected NAND strings, having a group of more than four adjacent NAND strings within the same memory block each associated with a respective global bit line not shared by the other NAND string of the group (see FIG. 3).

**Regarding claims 19-33**, see entire disclosure in Scheuerlein.

**Regarding claim 34**, Scheuerlein discloses, in FIGS. 1-3, an integrated circuit comprising a memory array having at least one plane of memory cells (see FIG. 1), said memory cells comprising thin film modifiable conductance switch devices and which cells are arranged in a plurality of series-connected NAND strings, having NAND strings on identical pitch as their respective global bit lines (see claims 93-94 in Scheuerlein, claims 93-94 claim for two NAND string memory planes, each NAND string from each of memory planes being connected to the same global bit lines, i.e. NAND strings on each of memory plane is on identical pitch as global bit lines).

**Regarding claims 35-49**, see entire disclosure in Scheuerlein.

**Regarding claim 1**, Sakui discloses an integrated circuit comprising a memory array (see FIG. 48) having at least one plane of memory cells, said memory cells comprising thin film modifiable conductance switch devices (MONOS EEPROM cells, see column 42, line 7) and

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which cells are arranged in a plurality of series-connected NAND strings (see FIG. 47 for example of one NAND string), said NAND strings including a series select device at each end thereof (select gate transistor S2, see FIG. 47).

**Regarding claims 3-5, 9, 15-17**, see entire disclosure in Sakui (e.g. select gate transistors S1(s) having block insulating films 40SSL between the control [floating] gate 27SSL and charge storing layer 26SSL, see FIG. 44, etc.).


### *Conclusion*

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VanThu Nguyen whose telephone number is (571) 272-1881. The examiner can normally be reached on Monday-Friday, 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on (571) 272-1869. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

January 7, 2006

  
VanThu Nguyen  
Primary Examiner  
Art Unit 2824